

IN THE CLAIMS:

Please AMEND claims 7, 8, 14, 15, 18, 19-22, 26-28, 32, 39, 40, 42-47, 50-52, 55-57, 59, 62 and 63 as follows.

1. (Previously Presented) A method, comprising:

monitoring a length of a data queue in a first network element as an indication of future need of communication resources in the first network element, wherein the indication comprises a coded value of the length of the data queue in the first network element, and wherein the length of the data queue is embedded in a data block from the first network element; and

allocating the communications resources for a transmission between the first network element and a second network element based on the indication.
2. (Cancelled)
3. (Previously Presented) The method according to claim 1, wherein the monitoring of the indication further comprises monitoring information about a transmit buffer of the first network element.

4. (Previously Presented) The method according to claim 1, wherein the monitoring of the indication further comprises monitoring information on additional resources needed by said first network element.

5-6. (Cancelled)

7. (Currently Amended) The method according to claim 1, wherein the first network element iscomprises a mobile station and the second network element iscomprises a base station of a wireless communication network.

8. (Currently Amended) A system, comprising:
a plurality of first stations;
a second station connected to the plurality of first stations through a plurality of communication links; and
a controller configured to control allocation of the communication resources among the communication links, wherein
the controller is separate and independent from the first stations,
said allocation is performed in accordance with information transmitted from each of the first stations, ~~and~~ wherein the information from each of the first stations comprises a data block embedding a coded value of a length of a data queue in each of the first stations, and

the controller is configured to use the length of a data queue is an indication of future need of communication resources for each of the first stations.

9. (Previously Presented) The system according to claim 8, wherein said controller is part of a base station.

10-12. (Cancelled)

13. (Previously Presented) The system according to claim 8, wherein each of said first stations are configured to transmit a transmission comprising a plurality of data blocks, and wherein the coded value of the length of a data queue of one of the first stations is provided in each of said data blocks in the transmission associated with said one first station.

14. (Currently Amended) An apparatus, comprising:
a controller configured to
control allocation of communication resources for a mobile station, wherein the allocation is based upon queue length information received from the mobile station that is embedded in a data block, and
use the queue length information as an indication of future need of communication resources for the mobile station.

15. (Currently Amended) An apparatus, comprising:
a processor configured to
encode a code representative of a length of a data queue embedded in a data
block, and
transmit ~~said~~ data packets and said data block with said code included in
the data block as a field to a network element, wherein
the length of the data queue is used by the network element as an indication
of future need of communication resources for the apparatus.

16. (Previously Presented) The method according to claim 1, wherein the
monitoring further comprises receiving data packets and wherein each of the data packets
comprises the indication of the length of the data queue.

17. (Cancelled)

18. (Currently Amended) The apparatus according to claim 26, wherein ~~the~~
~~processor is further configured to receive a plurality of data packets and~~ each of said data
packets comprises said queue length information.

19. (Currently Amended) The apparatus according to claim 15, ~~wherein said data comprises a plurality of data packets, and~~ wherein each of said data packets comprises said code.

20. (Currently Amended) An apparatus, comprising:
decoder means for decoding a code representative of a length of a data queue in a mobile station, wherein the length of the data queue is embedded in a data block from the mobile station; and
controller means for controlling allocation of communication resources, wherein said decoder means is configured to decode and provide queue length information for the mobile station to the controller means, and
the controller means is configured to use the queue length information as an indication of future need of communication resources for the mobile station.

21. (Currently Amended) An apparatus, comprising:
~~data generator means for generating data;~~
data queue means for receiving data packets ~~from the data generator means;~~
encoder means for encoding a code representative of a length of the data queue means, wherein the encoder means is configured to embed the length of the data queue in a data block; and

transmitter means for transmitting said data packets and said data block to a network element, wherein

said code is included in the data block as a field, and
the length of the data queue is used by the network element as an indication of future need of communication resources for the apparatus.

22. (Currently Amended) A method, comprising:

~~generating data;~~

encoding a code representative of a length of a data queue in a first network element, wherein the length of the data queue is embedded in a data block and the data queue is configured to receive the ~~generated~~-data block; and

transmitting data packets comprising a field comprising said code to a second network element, wherein

said code is used when allocating communication resources for a transmission between the first network element and ~~a~~the second network element, and

the length of the data queue is used by the second network element as an indication of future need of communication resources in the first network element.

23. (Previously Presented) The method according to claim 22, wherein the encoding of the code further comprises encoding information about a transmit buffer of the first network element.

24. (Previously Presented) The method according to claim 22, wherein the encoding of the code further comprises encoding information on additional resources needed by said first network element.

25. (Previously Presented) The method according to claim 22, wherein the first network element comprises a mobile station and the second network element comprises a base station of a wireless communication network.

26. (Currently Amended) The apparatus according to claim 14, wherein the controller is further comprising: a decoder configured to: decode a code representative of the queue length information for each of the at least one mobile station, and
~~provide said queue length information for each of the at least one mobile station to the controller.~~

27. (Currently Amended) The apparatus according to claim 26, wherein the code comprises information about a transmit buffer for ~~each of the at least one mobile station.~~

28. (Currently Amended) The apparatus according to claim 26, wherein the code comprises information on the additional resources needed by ~~each of the at least one mobile station.~~

29. (Previously Presented) The apparatus according to claim 15, wherein the code further comprises information about a transmit buffer for the apparatus.

30. (Previously Presented) The apparatus according to claim 15, wherein the code further comprises information on additional resources needed by said apparatus.

31. (Previously Presented) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

monitoring a length of a data queue in a first network element as an indication of future need of communication resources in the first network element, wherein the indication comprises a coded value of a length of a data queue in the first network element, and wherein the length of the data queue is embedded in a data block from the first network element; and

allocating the communications resources for a transmission between the first network element and a second network element based on the indication.

32. (Currently Amended) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

~~generating data;~~

encoding a code representative of a length of a data queue in a first network element, wherein the data queue is configured to receive ~~the generated data~~, and wherein the length of the data queue is embedded in a data block from the first network element; and

transmitting data packets comprising a field comprising said code to a second network element,

wherein

said code is used when allocating communication resources for a transmission between the first network element and ~~a~~the second network element, and

the length of the data queue is used by the second network element as an indication of future need of communication resources in the first network element.

33. (Previously Presented) An apparatus, comprising:

a processor configured to

monitor a length of a data queue in a first network element as an indication of future need of communication resources in the first network element, wherein the indication comprises a coded value of the length of the data queue in the first network element, and wherein the length of the data queue is embedded in a data block from the first network element, and

allocate the communications resources for a transmission between the first network element and the apparatus based on the indication.

34. (Previously Presented) The apparatus according to claim 33, wherein the processor is further configured to monitor information about a transmit buffer of the first network element.

35. (Previously Presented) The apparatus according to claim 33, wherein the processor is further configured to monitor information on additional resources needed by said first network element.

36. (Previously Presented) The apparatus according to claim 33, wherein the first network element comprises a mobile station and the second network element comprises a base station of a wireless communication network.

37. (Previously Presented) The apparatus according to claim 33, wherein the processor is further configured to perform the monitoring by receiving data packets and wherein each of the data packets comprises the indication of the length of the data queue.

38. (Previously Presented) An apparatus, comprising:
monitoring means for monitoring a length of a data queue in a first network element as an indication of future need of communication resources in the first network element, wherein the indication comprises a coded value of the length of the data queue

in the first network element, and wherein the length of the data queue is embedded in a data block from the first network element, and

allocating means for allocating the communications resources for a transmission between the first network element and the apparatus based on the indication.

39. (Currently Amended) A method, comprising:

controlling allocation of communication resources for a mobile station by a controller, wherein the allocation is based upon queue length information received from the mobile station that is embedded in a data block; and

using, by the controller, the queue length information as an indication of future need of communication resources for the mobile station.

40. (Currently Amended) The method according to claim 39, further comprising:

decoding, by the controller, a code representative of the queue length information for ~~each of the at least one~~ mobile station; ~~and~~

~~providing said queue length information for each of the at least one mobile station to the controller.~~

41. (Previously Presented) The method according to claim 40, further comprising:

receiving a plurality of data packets, wherein each of said data packets comprises said queue length information.

42. (Currently Amended) The method according to claim 40, wherein the decoding of the code comprises decoding information about a transmit buffer for ~~each of~~ the ~~at least one~~ mobile station.

43. (Currently Amended) The method according to claim 40, wherein the decoding of the code further comprises decoding information on the additional resources needed by ~~each of the at least one~~ mobile station.

44. (Currently Amended) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

controlling allocation of communication resources for a mobile station, wherein the allocation is based upon queue length information received from the mobile station that is embedded in a data block; and

using the queue length information as an indication of future need of communication resources for the mobile station.

45. (Currently Amended) An apparatus, comprising:
controlling means for controlling allocation of communication resources for a mobile station; and
allocating means for performing the allocation based upon queue length information received from the mobile station that is embedded in a data block, wherein the allocating means is configured to use the queue length information as an indication of future need of communication resources for the mobile station.

46. (Currently Amended) A method, comprising:
encoding a code representative of a length of a data queue embedded in a data block in a first network element; and
transmitting ~~said~~ data packets and said data block with said code included in the data block as a field to a second network element, wherein the length of the data queue is used by the second network element as an indication of future need of communication resources for the first network element.

47. (Currently Amended) The method according to claim 46, wherein said transmitting of said data ~~packs~~packets comprises transmitting a plurality of data packets, and wherein each of said data packets comprises said code.

48. (Previously Presented) The method according to claim 46, wherein the encoding of the code further comprises encoding information about a transmit buffer for the first network element.

49. (Previously Presented) The method according to claim 46, wherein the encoding of the code further comprises encoding information on additional resources needed by said first network element.

50. (Currently Amended) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

encoding a code representative of a length of a data queue embedded in a data block by a first network element; and

transmitting ~~said~~ data packets and said data block with said code included in the data block as a field to a second network element, wherein

the length of the data queue is used by the second network element as an indication of future need of communication resources for the first network element.

51. (Currently Amended) An apparatus, comprising:

encoding means for encoding a code representative of a length of a data queue embedded in a data block; and

transmitting means for transmitting ~~said~~ data packets and said data block with said code included in the data block as a field to a network element, wherein
the length of the data queue is used by the network element as an indication of
future need of communication resources for the apparatus.

52. (Currently Amended) An apparatus, comprising:
a processor configured to
~~generate data,~~
encode a code representative of a length of a data queue in the apparatus,
wherein the length of the data queue is embedded in a data block and the data queue is
configured to receive the ~~generated~~ data block, and
transmit data packets comprising a field comprising said code to a network
element, wherein
said code is used when allocating communication resources for a transmission
between the apparatus and ~~another~~ the network element, and
the length of the data queue is used by the network element as an indication of
future need of communication resources for the apparatus.

53. (Previously Presented) The apparatus according to claim 52, wherein the
code further comprises information about a transmit buffer of the apparatus.

54. (Previously Presented) The apparatus according to claim 52, wherein the code further comprises information on additional resources needed by the apparatus.

55. (Currently Amended) The apparatus according to claim 52, wherein the apparatus comprises a mobile station and the ~~another~~ network element comprises a base station of a wireless communication network.

56. (Currently Amended) A computer program embodied on a computer-readable storage medium, the program configured to control a processor to perform a process, the process comprising:

~~generating data;~~

encoding a code representative of a length of a data queue in a first network element, wherein the length of the data queue is embedded in a data block and the data queue is configured to receive the ~~generated~~-data block; and

transmitting data packets comprising a field comprising said code to a second network element, wherein

said code is used when allocating communication resources for a transmission between the first network element and ~~a~~the second network element, and

the length of the data queue is used by the second network element as an indication of future need of communication resources for the first network element.

57. (Currently Amended) An apparatus, comprising:

~~data generating means for generating data;~~

encoding means for encoding a code representative of a length of a data queue in the apparatus, wherein the length of the data queue is embedded in a data block and the data queue is configured to receive the ~~generated~~-data block; and

transmitting means for transmitting data packets comprising a field comprising said code to a network element, wherein

said code is used when allocating communication resources for a transmission between the apparatus and ~~another~~the network element, and

the length of the data queue is used by the network element as an indication of future need of communication resources for the apparatus.

58. (Previously Presented) The method of claim 1, wherein the monitoring further comprises monitoring a countdown value of the data block for an indication of the length of the data queue.

59. (Currently Amended) The apparatus of claim 14, wherein the controller is configured to perform the allocation based on the queue length information included in a countdown value of the data block.

60. (Previously Presented) The apparatus of claim 15, wherein the processor is configured to include the code representative of the queue length in a countdown value of the data block.

61. (Previously Presented) The method of claim 22, wherein the encoding further comprises encoding the code representative of the length of the data queue in a countdown value of the data block.

62. (Currently Amended) The apparatus of claim 33, wherein the processor is configured to monitor a countdown value of the data block for ~~an~~the indication of the length of the data queue.

63. (Currently Amended) The method of claim 39, wherein the controlling further comprises performing the allocation based on the queue length information included in a countdown value of the data block.

64. (Previously Presented) The method of claim 46, wherein the encoding further comprises including the code representative of the queue length in a countdown value of the data block.

65. (Previously Presented) The apparatus of claim 52, wherein the processor is configured to encode the code representative of the length of the data queue in a countdown value of the data block.